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**Pasta products.****Publication number:** EP0084831**Publication date:** 1983-08-03**Inventor:** MOHR GUNTER DIPL-ING; MOUTHS EBERHARD W;  
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A23L1/18; (IPC1-7): A23L1/16**- European:** A23L1/00P12; A23L1/16; A23L1/18B2**Application number:** EP19830100318 19830117**Priority number(s):** DE19823201765 19820121**Also published as:**DE3201765 (A1)  
EP0084831 (B1)**Cited documents:**FR2137872  
US3703379  
DE2327897  
FR2282813  
GB1174133  
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1. Pastes articles, which can be made ready for consumption by treatment with hot water without additional cooking, obtainable by extrusion of a paste of the following composition : 60 to 80 parts by weight soft wheat semolina, which can contain up to 50 % by weight hard wheat semolina, 2 to 5 parts by weight cooking salt and 1.0 to 2.5 parts by weight of an emulsifier, and possibly colouring agents and seasoning, which has been given a moisture content of 20 to 35 % by weight, with an extruder temperature of 130 to 150°C, in particular 150 to 200°C and by drying of the extruded products to a final moisture content of 10 to 12 % by weight.

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Description Paste commodity the invention concerns a paste commodity, which can be brought by treatment with hot water without additional cooking in consumption-finished condition. Teigwaren that kind managing specified can be called genericmoderately "Instant noodles". Such teigwaren are well-known e.g. from the DE-AS 26 59 027. These noodles are manufactured, by treating raw noodles first with one essbarenOl and a emulsifying means. The surface tension of the water is to be decreased by the emulsifying means, in order to facilitate the penetration of the hot water. Subsequently, the in such a way treated noodles are vaporized, so that a certain A-Umwandlungsgrad of the strength adjusts itself. Finally the noodle is dried at temperatures of more than 600 C. Other become known Instant noodles exhibits inside a porous structure in their to reach in order to increase the wasseraufnahmefaeigkeit (DE-OS 28 46 045). Die DE-OS 25 38 594 finally concerns Instant noodles on the basis of wheat semolina, whereby the wheat semolina with water is mixed and the received paste is subjected at temperatures zwischen 90-110 C of a high pressure extruding, in order gelling the strength. Those Instant noodles managing specified exhibit a consistency or a one atypical for noodles in the consumption-finished condition either in different additives caused atypical taste. The invention is directed toward a paste commodity of the kind initially specified, which nachUbergiessen with hot or cooking water within 1,5 to 8 minutes into a consumption-finished condition be brought can. Since cooking water, e.g. to out warm water heaters, is more frequently at the disposal than a usual cook possibility, the preparation of the teigwaren is substantially simplified. The aforementioned task is solved according to invention by a paste commodity, those by extruding of a paste of the following composition: 60 to 80 thread partial soft wheat semolina, which can contain thread % hard wheat semolina up to 50, 2 to 5 thread parts common salt and 1.0 to 2.5 thread parts of an emulsifying agent, as well as if necessary colorgiving additives and spices, which was adjusted to a moisture content by 20 bis 35 thread %, at a temperature of 130 - 2500 C, in particular 150 - 2000 C, as well as by drying the extruded product on a final dampness of 10 - 12 Gew. % is available. For the wheat semolina which can be used soft wheat semolina is used according to invention. Hard wheat semolina with high protein

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10-12 % by weight

content and very good adhesive quality is only conditionally suitably, there this adhesive very tautly, inelastically and is "short". Thus a too close structure of the paste commodity is received, which makes the penetration more difficult of the water. One can add however the soft wheat semolina in such cases hard wheat semolina, if the Rehydrationszeit of the paste commodity is to be extended. To consider it is in these cases that then the consistency of the consumption-finished noodle can be changed in unwanted way. Altogether one still comes to useful results, if the wheat semolina consists of a mixture of hard and soft wheat semolina in the relationship of 1:1. During the Gelatinierung the protein coagulates at the extrusion temperatures; on the other hand the strength is unlocked and tightens when meeting with water this begierig and binds it presently/immediately and in large quantities. Common salt is added mainly for taste influence. In addition, it has an influence on protein-solves' lichkeit and on the formation of the protein strength complex by the emulsifying agent which can be added likewise according to invention. The formation of this complex is necessary, in order to cause the specific characteristics of the teigwaren of the invention. Further the emulsifying agent lowers the surface tension of the water and facilitates the penetration into the product. In addition, the emulsifying agent has substantial influence on the consistency of the rehydratisierten product. Preferred one uses Glycerinmonostearat. It proved as favourable, the emulsifying agent before the addition to the paste by dissolving in warm water, e.g. with a temperature of 800 C in the relationship of 1:4 to rehydratisieren. By intensive agitating one receives a sturdy emulsion, which is then trained into the paste. When colorgiving additive has itself in particular Eigelbpulver as suitably proven, also a taste improvement causes at the same time. In accordance with a further favourable execution form of the invention one can add related to paste dry weight, ascorbic acid to the paste up to 0,01 thread %. This additive causes a rationalisation of the wheat adhesive, whereby the dissolution of strength and protein can be prevented with derRehydratisierung. The aforementioned basic materials are mixed in commercial mixers, which ensure a good distribution of the water which can be added, thoroughly, whereby one in addition-sets so much water that the paste exhibits a water content from 20 to 35 thread %. The extruding of the in such a way received paste

can take place in in or multi-screw-type extruding machines. The extrusion temperature 150 -200 C amounts to according to invention. The extruding pressure amounts to preferably 60 - 140 bar. The retention times for the paste in extrusion can be dependent on the temperature in extrusion; they amount to preferably 3 - 8 minutes. The extruded paste commodity can exhibit any, well-known form. It is to be only made certain that the paste commodity is not to exceed a certain thickness, because otherwise a too long Rehydrationszeit will receive or Kernder dte commodity remains hard. Generally the teigwaren contain 15 - 25 thread % water after extruding as a function of the exit damp and the extruding conditions. After the extruding therefore a drying process is connected at the outlet side according to invention, in order the teigwaren on a final dampness of 10 - 12 thread % to bring. The drying process should take place carefully, in order to avoid the occurrence of hair-cracks in the teigwaren. Volume dryer of an actually well-known kind, which works at longer passage times and low temperatures, is particularly suitable. There is however also different one, suitable drying methods, e.g. drying process on hordes/hurdles, conceivable. Further favourable characteristics of the invention result from the following remark example. In a commercial mixer, which ensures a good distribution of the water which can be added, a paste of the fglgenden composition is prepared: 4.000 kg soft wheat semolina 0.075 kg salt 0.150 kg of Eigelbpulver 0.100 kg of Glycerinmonostearat 0.005 kg of ascorbic acid 1.150 kg water. The in such a way prepared paste is extruded in an a screw-type extruding machine to a nudelfoermigen Instant Teigware, whereby the retention time of the paste in extrusion 5 minutes, which amount to temperature of the paste at the exhaust nozzle 1100 C (according to a temperature of the paste in extrusion of 170 bis 180 C) and the extruding pressure 80 bar. The extruded product is dried afterwards on hordes/hurdles on a final dampness by 10 bis 12 %. The product is nachttbergiesen with cooking water and a Rehydrationszeit of 5 minutes. -----

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pressure